FIG.1

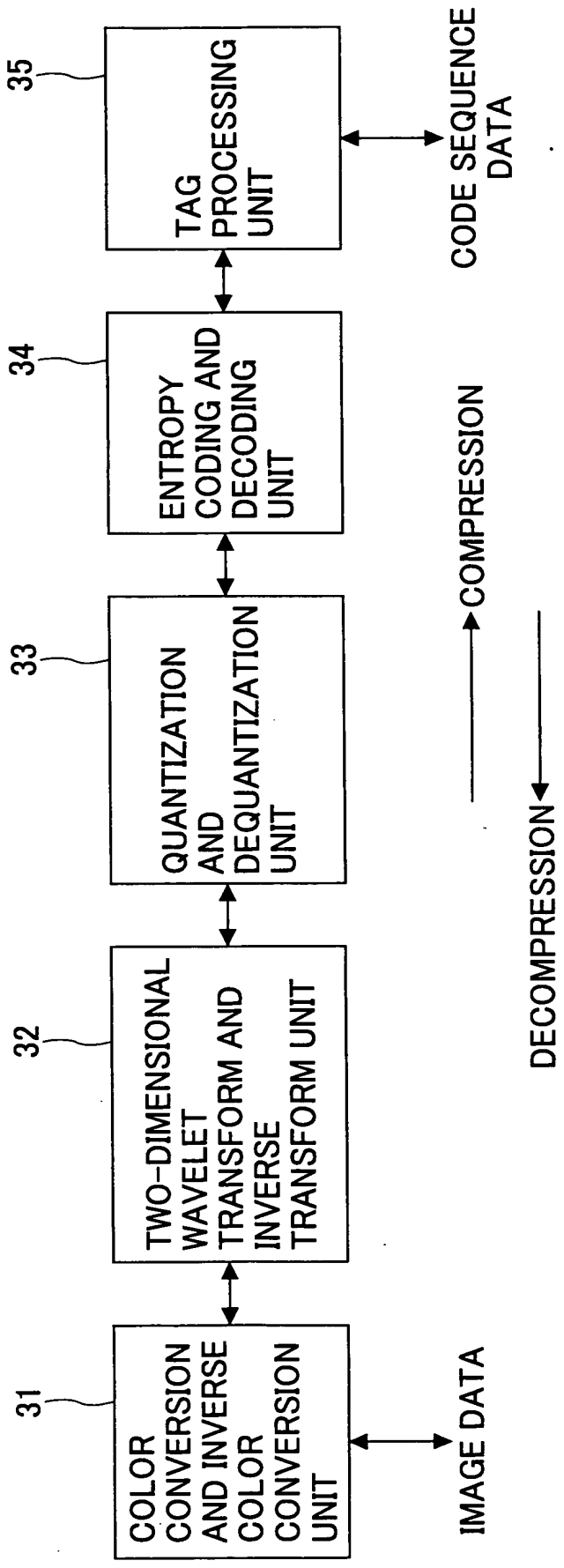
35
TAG PROCESSING UNIT
CODE SEQUENCE DATA
34
ENTROPY CODING AND DECODING UNIT
33
QUANTIZATION AND DEQUANTIZATION UNIT
32
TWO-DIMENSIONAL WAVELET TRANSFORM AND INVERSE TRANSFORM UNIT
31
COLOR CONVERSION AND INVERSE COLOR CONVERSION UNIT
IMAGE DATA
COMPRESSION
DECOMPRESSION

FIG.2

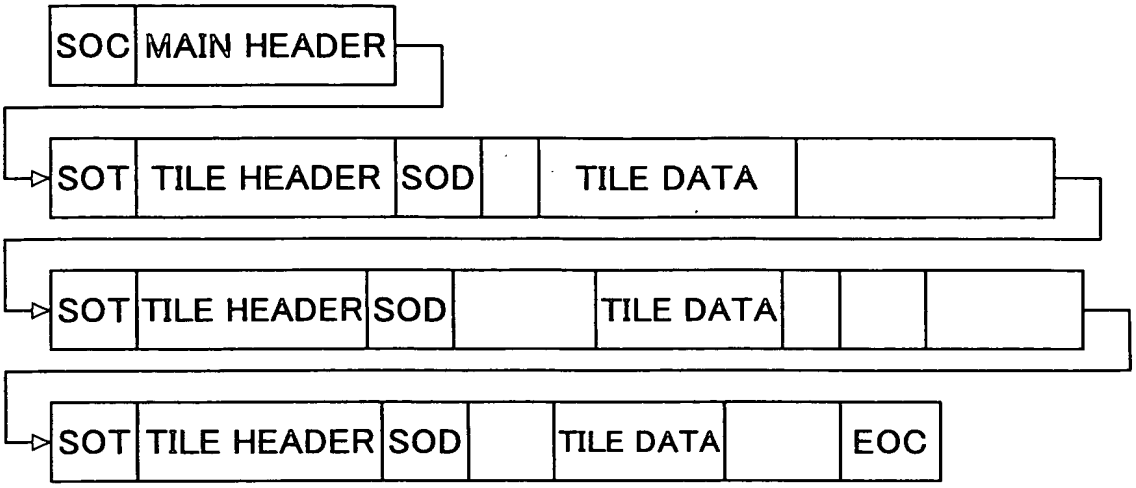
SOC
MAIN HEADER
SOT
TILE HEADER
SOD
TILE DATA
SOT
TILE HEADER
SOD
TILE DATA
SOT
TILE HEADER
SOD
TILE DATA
EOC

FIG.3

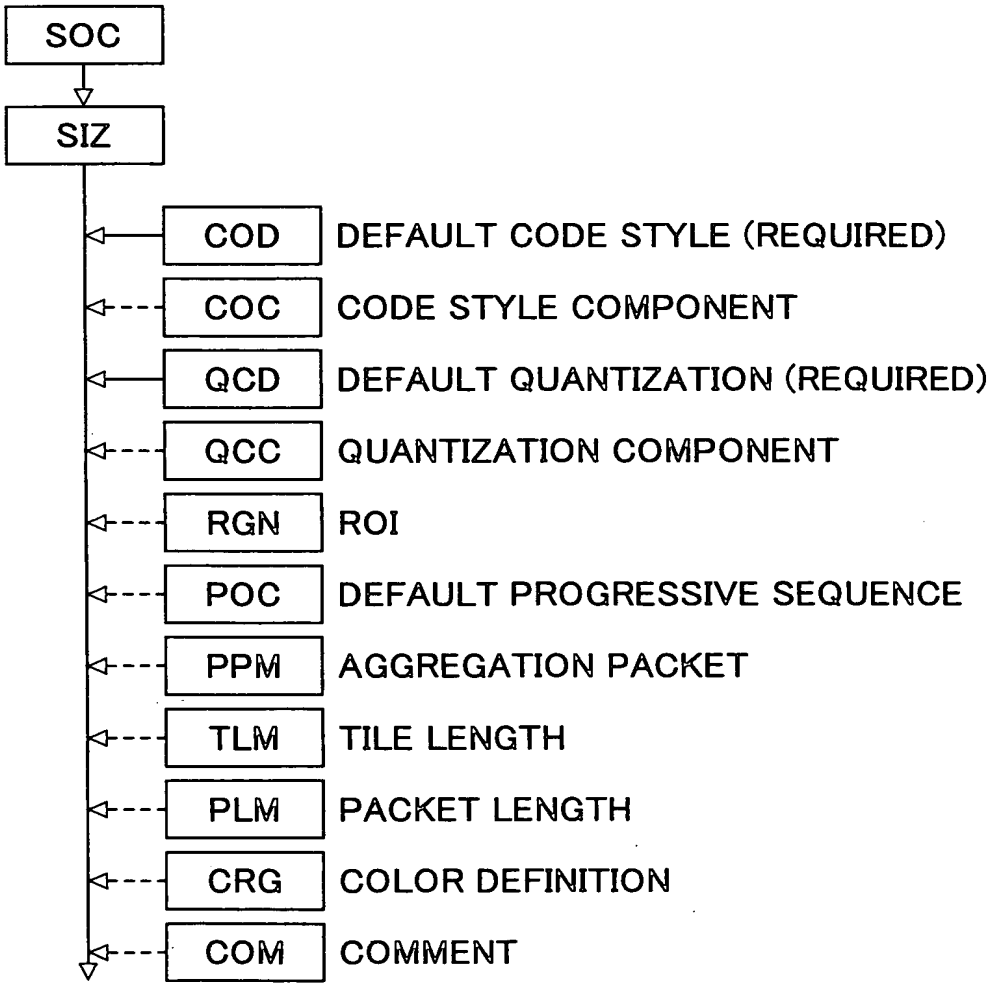
SOC
SIZ
COD
DEFAULT CODE STYLE (REQUIRED)
COC
CODE STYLE COMPONENT
QCD
DEFAULT QUANTIZATION (REQUIRED)
QCC
QUANTIZATION COMPONENT
RGN
ROI
POC
DEFAULT PROGRESSIVE SEQUENCE
PPM
AGGREGATION PACKET
TLM
TILE LENGTH
PLM
PACKET LENGTH
CRG
COLOR DEFINITION
COM
COMMENT

FIG.4A

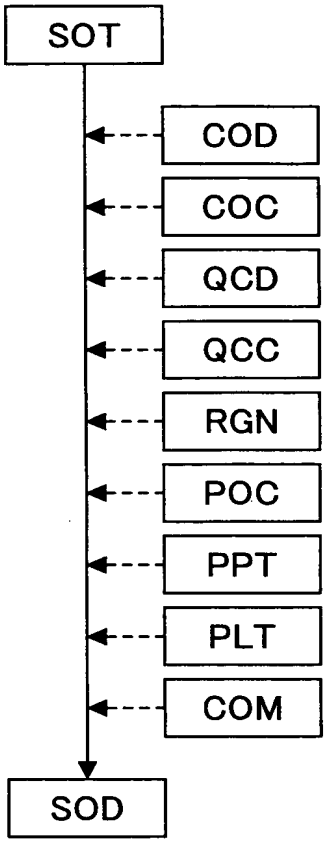
SOT
COD
COC
QCD
QCC
RGN
POC
PPT
PLT
COM
SOD

FIG.4B

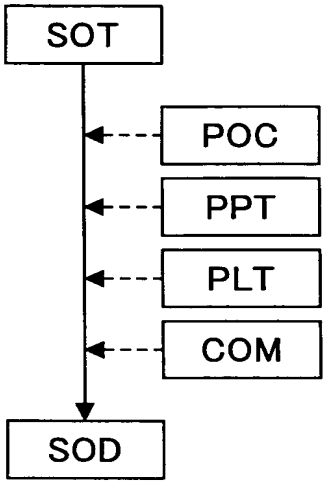
SOT
POC
PPT
PLT
COM
SOD

FIG.5

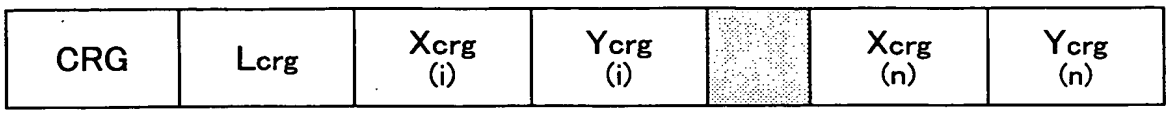

FIG.6

FIG.7

Marker code range	Standard definition
0xFF00, 0xFF01, 0xFFFE, 0xFFC0–0xFFDF	Defined in ITU-T Rec. T.81 | ISO/IEC 10918-1
0xFFE0–0xFFF6	Defined in ITU-T Rec. T.84 | ISO/IEC 10918-3
0xFFF7–0xFFF8	Defined in ITU-T Rec. T.87 | ISO/IEC 14495-1
0xFF4F–0xFF6F, 0xFF90–0xFF93	Defined in this Recommendation | International Standard
0xFF30–0xFF3F	Reserved for definition as markers only(no marker segments)
	All other values reserved

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FIG.8

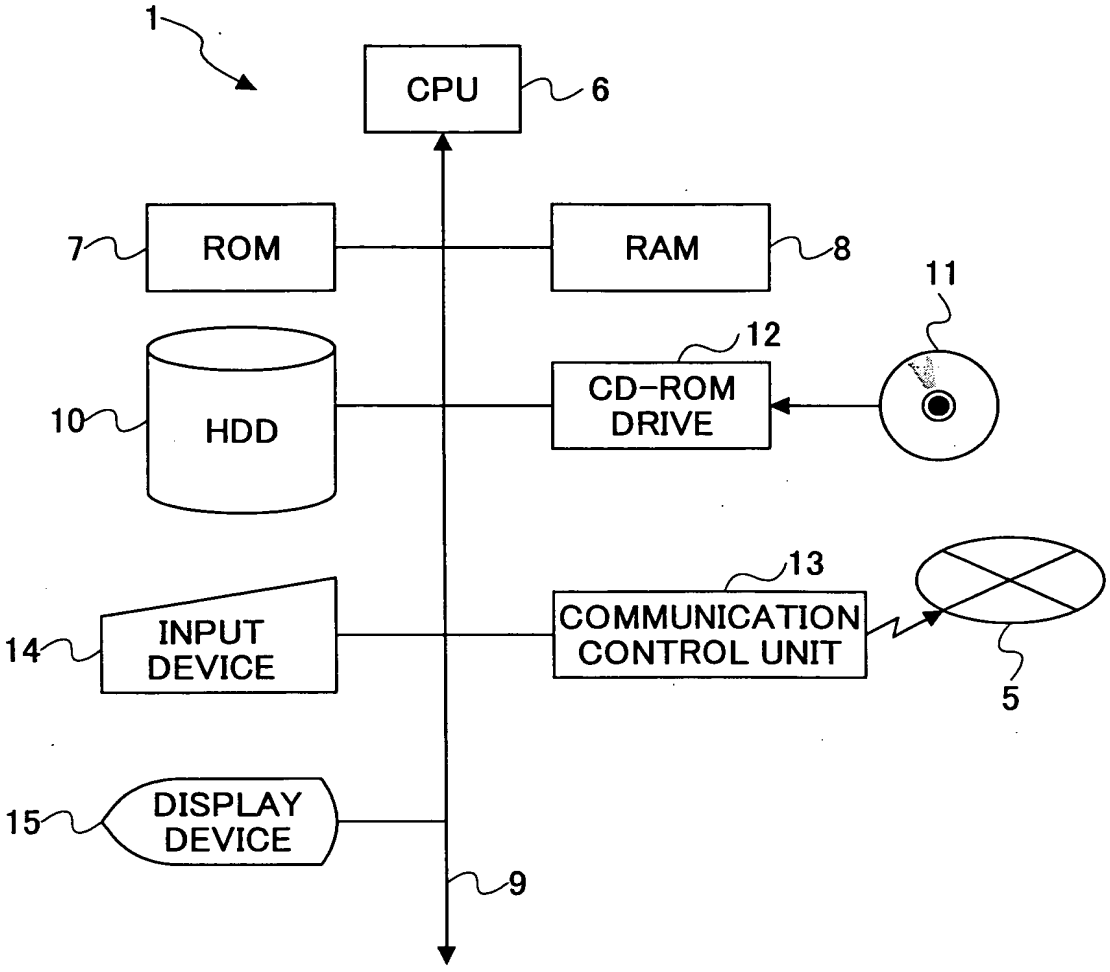

1
CPU
6
7
ROM
RAM
8
11
12
CD-ROM DRIVE
10
HDD
13
COMMUNICATION CONTROL UNIT
5
14
INPUT DEVICE
15
DISPLAY DEVICE
9

FIG.9

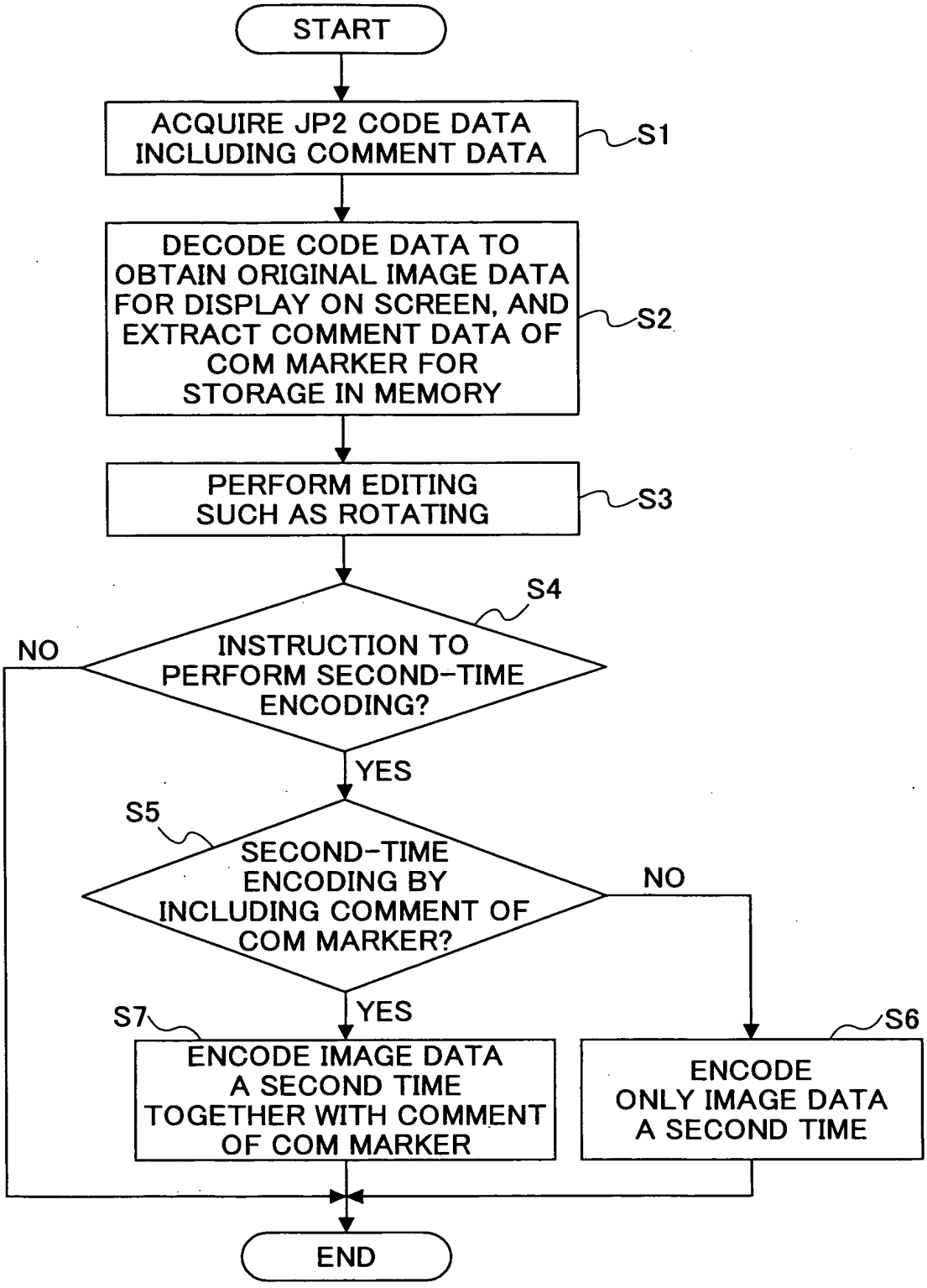

START
ACQUIRE JP2 CODE DATA INCLUDING COMMENT DATA
S1
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN, AND EXTRACT COMMENT DATA OF COM MARKER FOR STORAGE IN MEMORY
S2
PERFORM EDITING SUCH AS ROTATING
S3
S4
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S5
SECOND-TIME ENCODING BY INCLUDING COMMENT OF COM MARKER?
NO
YES
S7
ENCODE IMAGE DATA A SECOND TIME TOGETHER WITH COMMENT OF COM MARKER
S6
ENCODE ONLY IMAGE DATA A SECOND TIME
END

FIG.10

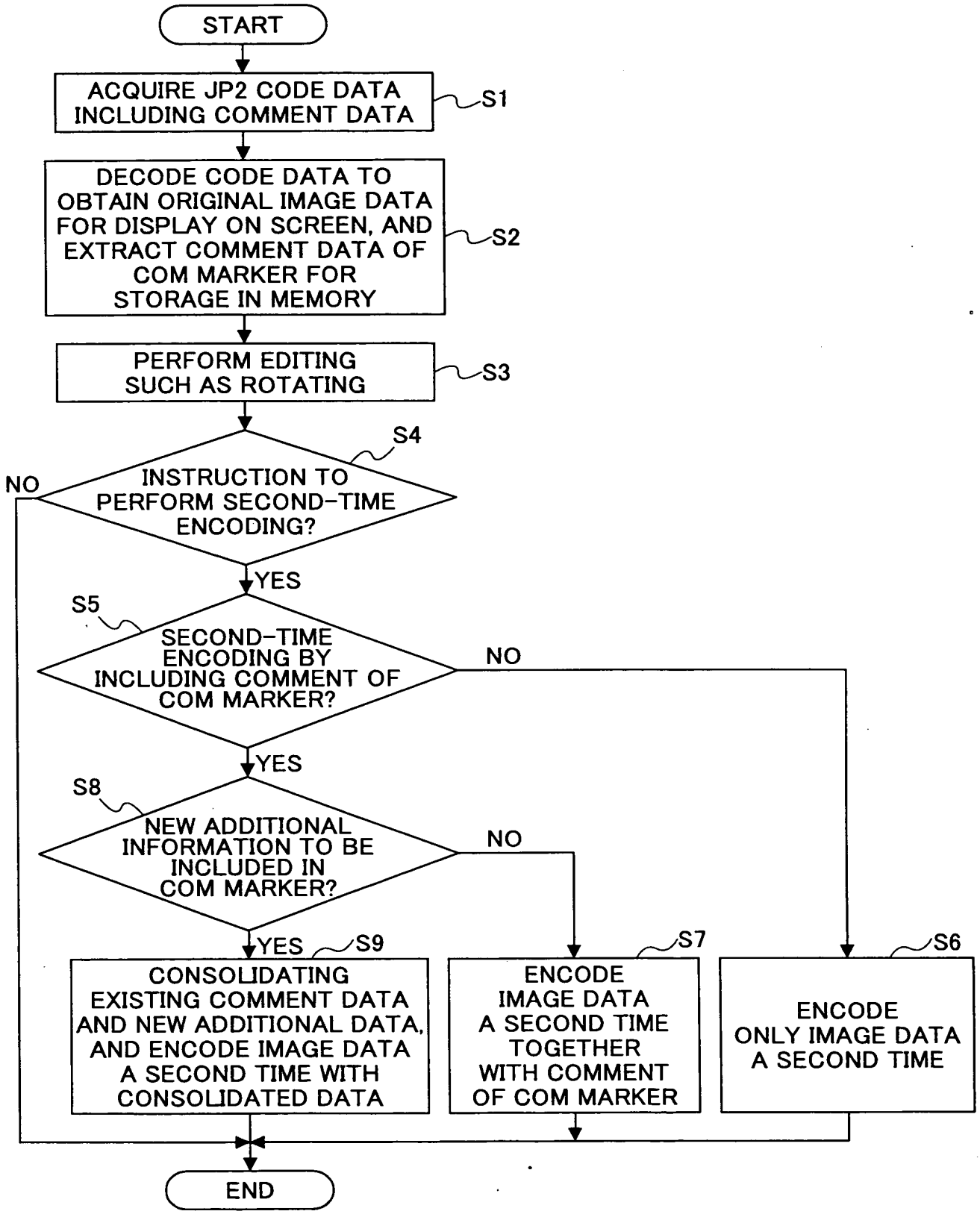

START
ACQUIRE JP2 CODE DATA INCLUDING COMMENT DATA
S1
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN, AND EXTRACT COMMENT DATA OF COM MARKER FOR STORAGE IN MEMORY
S2
PERFORM EDITING SUCH AS ROTATING
S3
S4
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S5
SECOND-TIME ENCODING BY INCLUDING COMMENT OF COM MARKER?
NO
YES
S8
NEW ADDITIONAL INFORMATION TO BE INCLUDED IN COM MARKER?
NO
YES
S9
CONSOLIDATING EXISTING COMMENT DATA AND NEW ADDITIONAL DATA, AND ENCODE IMAGE DATA A SECOND TIME WITH CONSOLIDATED DATA
S7
ENCODE IMAGE DATA A SECOND TIME TOGETHER WITH COMMENT OF COM MARKER
S6
ENCODE ONLY IMAGE DATA A SECOND TIME
END

FIG.11

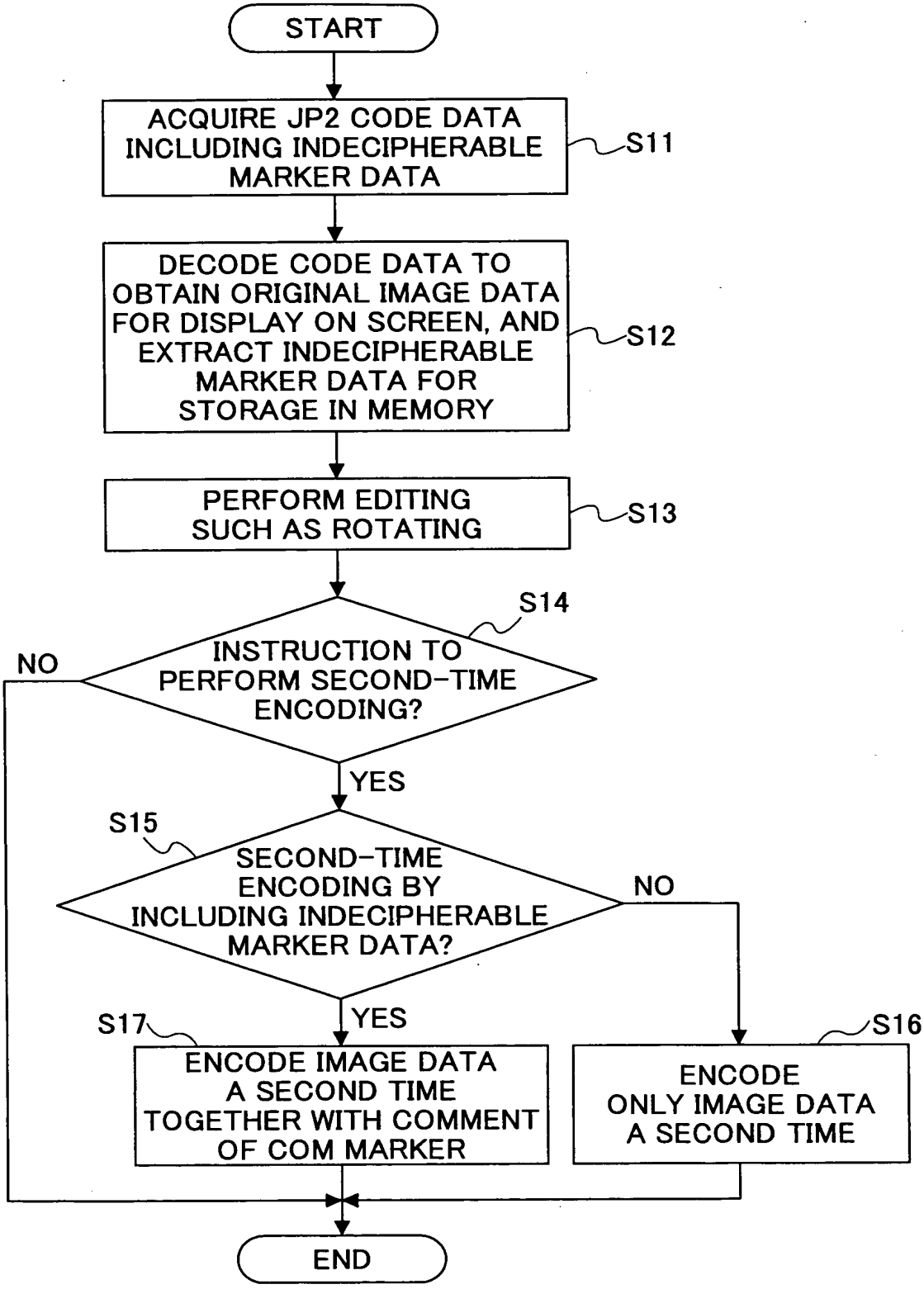

START
ACQUIRE JP2 CODE DATA INCLUDING INDECIPHERABLE MARKER DATA
S11
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN, AND EXTRACT INDECIPHERABLE MARKER DATA FOR STORAGE IN MEMORY
S12
PERFORM EDITING SUCH AS ROTATING
S13
S14
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S15
SECOND-TIME ENCODING BY INCLUDING INDECIPHERABLE MARKER DATA?
NO
YES
S17
ENCODE IMAGE DATA A SECOND TIME TOGETHER WITH COMMENT OF COM MARKER
S16
ENCODE ONLY IMAGE DATA A SECOND TIME
END

FIG.12

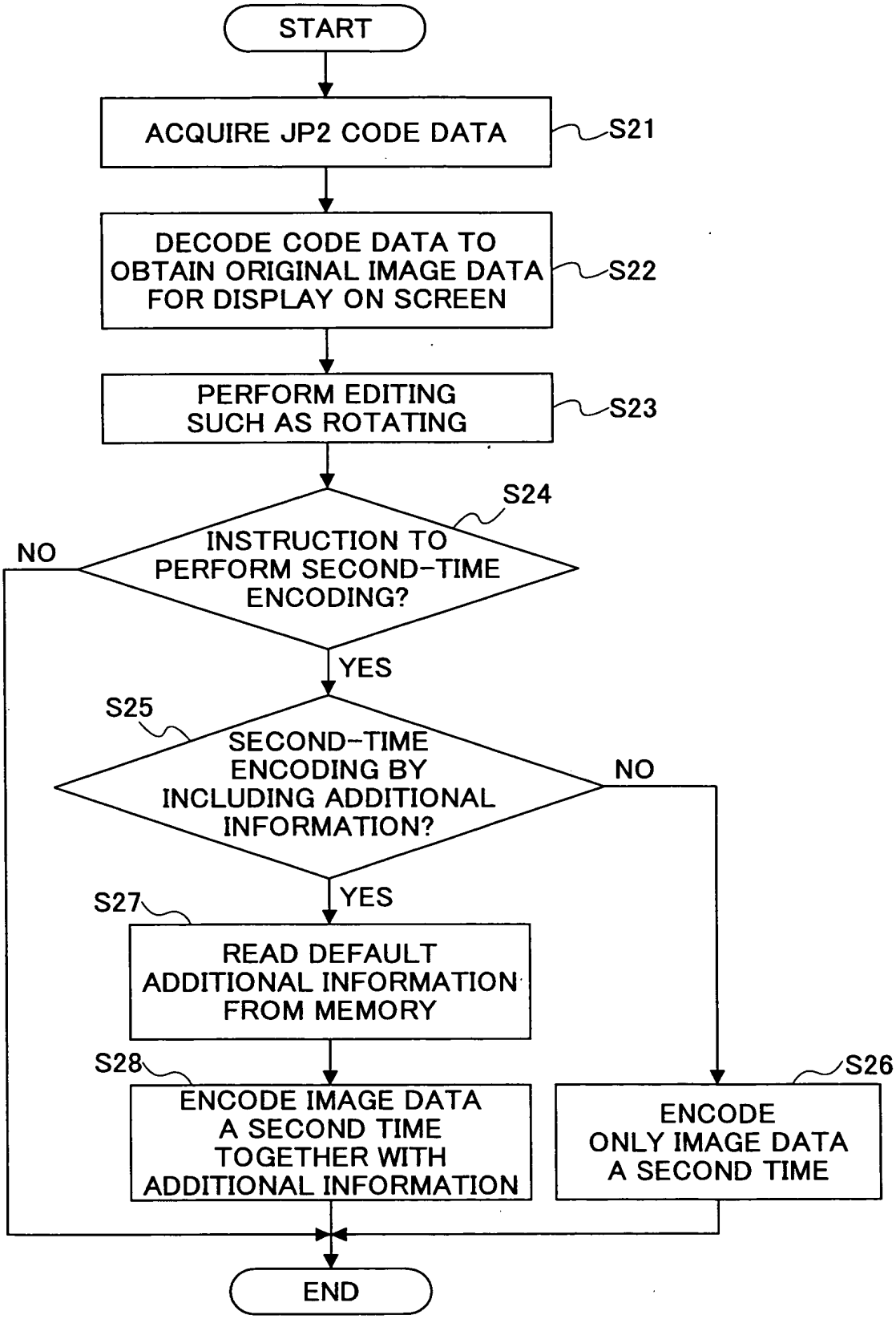

START
ACQUIRE JP2 CODE DATA
S21
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN
S22
PERFORM EDITING SUCH AS ROTATING
S23
S24
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S25
SECOND-TIME ENCODING BY INCLUDING ADDITIONAL INFORMATION?
NO
YES
S27
READ DEFAULT ADDITIONAL INFORMATION FROM MEMORY
S28
ENCODE IMAGE DATA A SECOND TIME TOGETHER WITH ADDITIONAL INFORMATION
S26
ENCODE ONLY IMAGE DATA A SECOND TIME
END

FIG.13

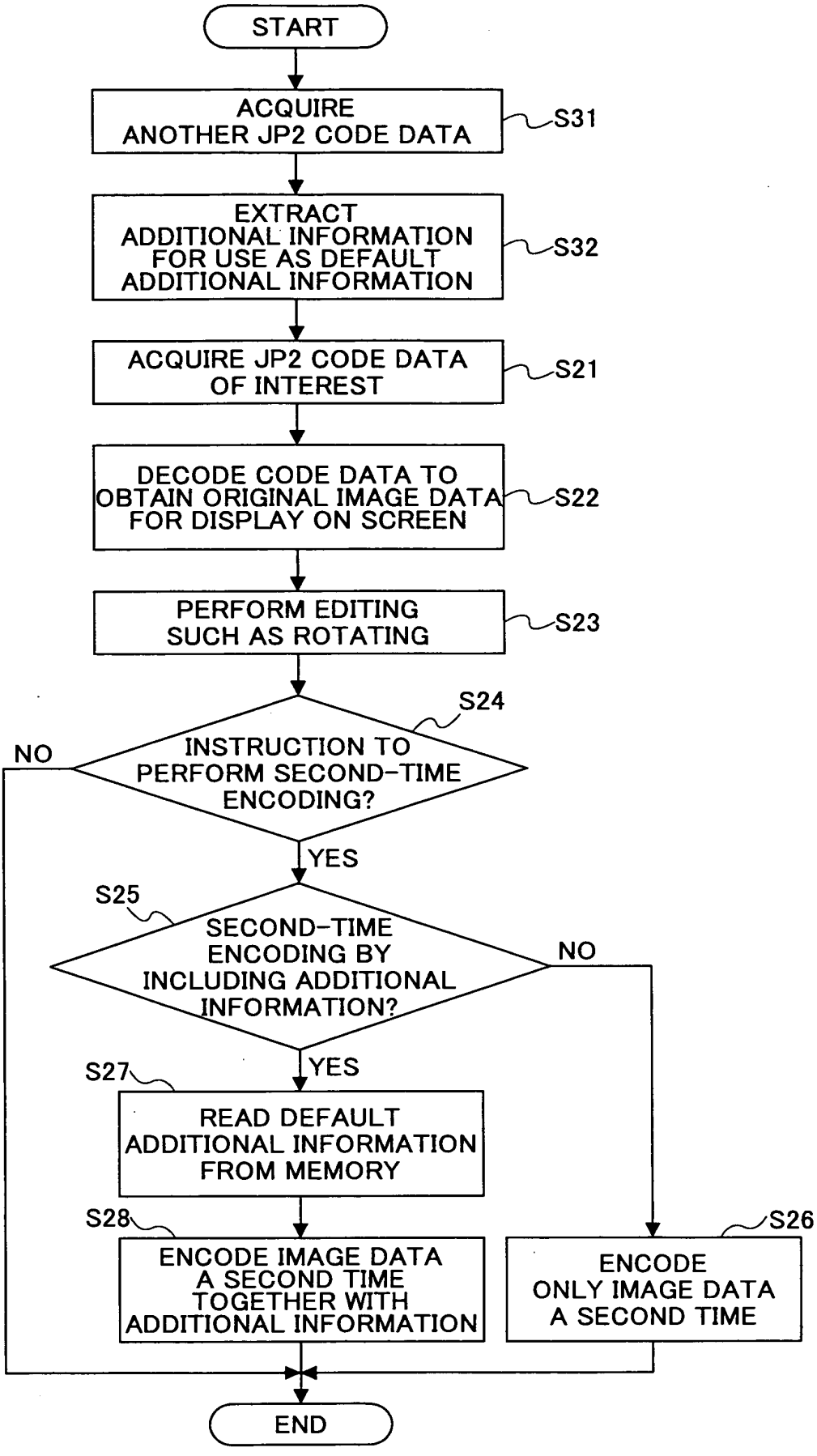

START
ACQUIRE ANOTHER JP2 CODE DATA
S31
EXTRACT ADDITIONAL INFORMATION FOR USE AS DEFAULT ADDITIONAL INFORMATION
S32
ACQUIRE JP2 CODE DATA OF INTEREST
S21
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN
S22
PERFORM EDITING SUCH AS ROTATING
S23
S24
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S25
SECOND-TIME ENCODING BY INCLUDING ADDITIONAL INFORMATION?
NO
YES
S27
READ DEFAULT ADDITIONAL INFORMATION FROM MEMORY
S28
ENCODE IMAGE DATA A SECOND TIME TOGETHER WITH ADDITIONAL INFORMATION
S26
ENCODE ONLY IMAGE DATA A SECOND TIME
END

FIG.14

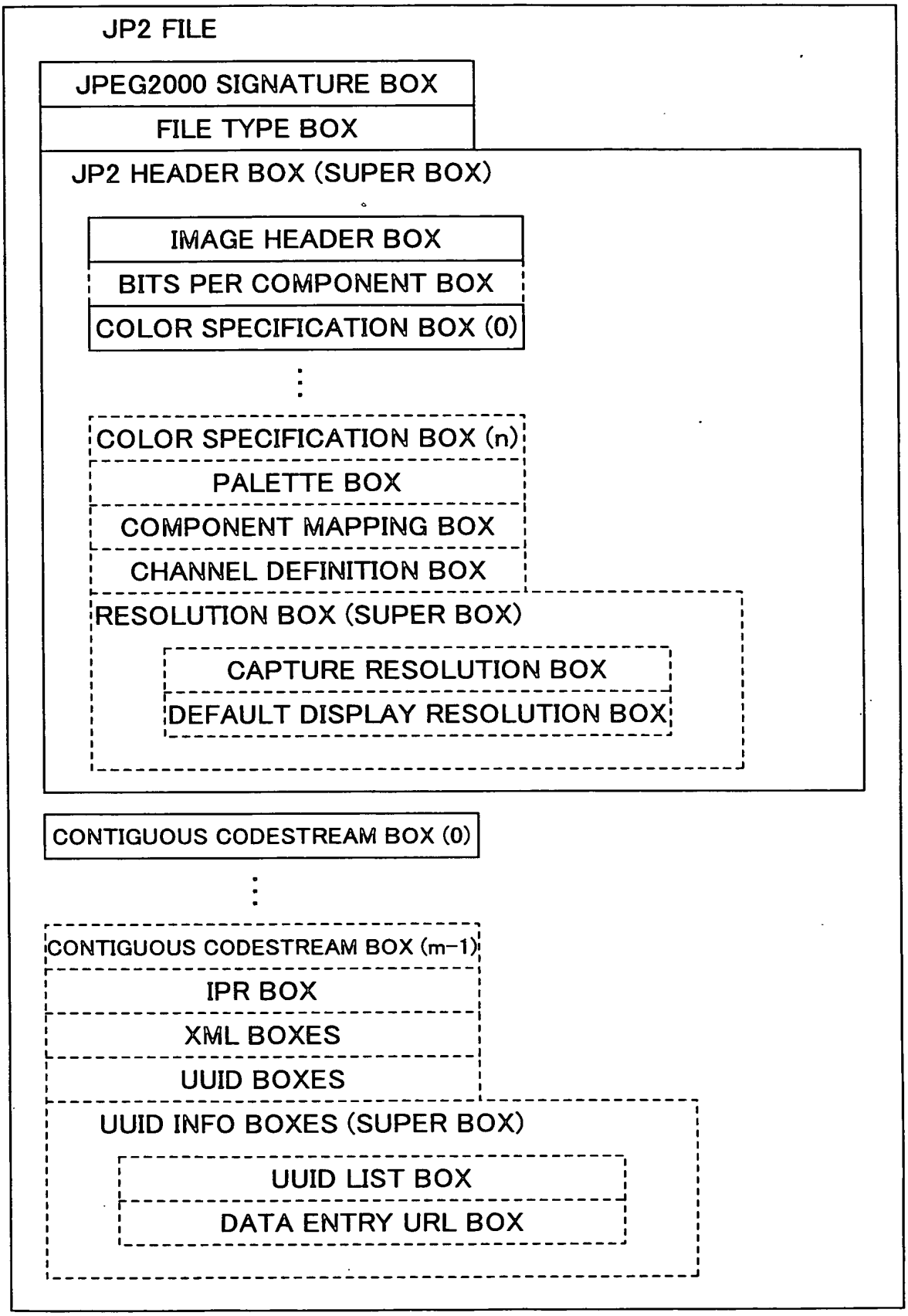
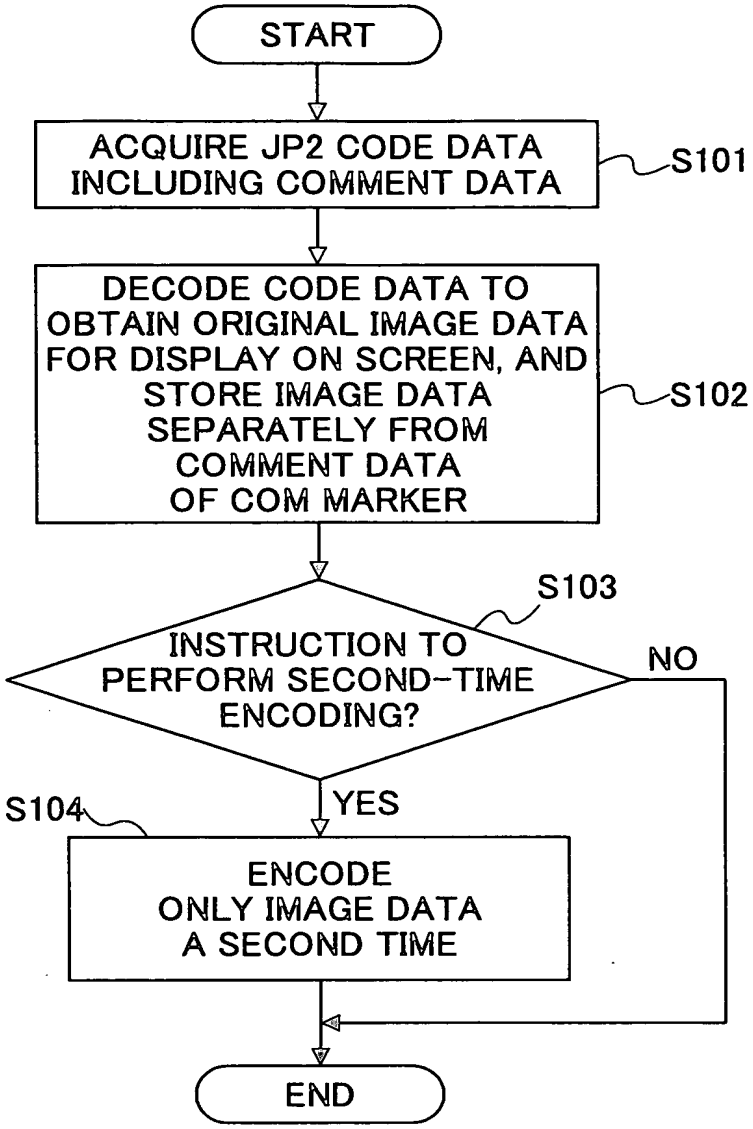

JP2 FILE
JPEG2000 SIGNATURE BOX
FILE TYPE BOX
JP2 HEADER BOX (SUPER BOX)
IMAGE HEADER BOX
BITS PER COMPONENT BOX
COLOR SPECIFICATION BOX (0)
COLOR SPECIFICATION BOX (n)
PALETTE BOX
COMPONENT MAPPING BOX
CHANNEL DEFINITION BOX
RESOLUTION BOX (SUPER BOX)
CAPTURE RESOLUTION BOX
DEFAULT DISPLAY RESOLUTION BOX
CONTIGUOUS CODESTREAM BOX (0)
CONTIGUOUS CODESTREAM BOX (m-1)
IPR BOX
XML BOXES
UUID BOXES
UUID INFO BOXES (SUPER BOX)
UUID LIST BOX
DATA ENTRY URL BOX

FIG.15


START
ACQUIRE JP2 CODE DATA INCLUDING COMMENT DATA
S101
DECODE CODE DATA TO OBTAIN ORIGINAL IMAGE DATA FOR DISPLAY ON SCREEN, AND STORE IMAGE DATA SEPARATELY FROM COMMENT DATA OF COM MARKER
S102
S103
INSTRUCTION TO PERFORM SECOND-TIME ENCODING?
NO
YES
S104
ENCODE ONLY IMAGE DATA A SECOND TIME
END